REMARKS

Claims 1-109 are pending in the present application. In the Office Action mailed June 1, 2007, the Examiner rejected claims 21 and 73 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner next rejected claims 1-4, 6, 7, 11, 12, 14, 15, 61-63, 65-67, and 85-90 under 35 U.S.C. §102(b) as being anticipated by Stevens, Jr. (USP 2,742,622). Claims 8, 10, 19, 24-32, 33-36, and 64 were rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens, Jr. in view of Double (USP 3,736,548). Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens, Jr. in view of Double applied as claim 1, and further in view of EP241121A2 (has equivalent US Patent Cusick, III et al. 4,702,539). Claims 9, 20, 70-72, 74, 76-81, and 92 were rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens, Jr. in view of Double applied as claim 1, and further in view of Lecocq (USP 3,491,329). Claims 13, 91, 93-96, 99, and 101 were rejected under 35 U.S.C 103(a) as being unpatentable over Stevens, Jr. in view of Double applied as claim 11, and further in view of Cusick, III et al. Claims 102-105 were rejected for the same reasons as claims 9, 10, and 13. Claims 106-108 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lecocq in view of Stevens, Jr.

Claims 37 and 75 were indicated as containing allowable subject matter. Such indication is appreciated.

Applicant has elected to cancel claims 16-18, 23, 38-60, 68-69, 82-84, 97-98, 100, and 109.

Objections

The Examiner objected to the drawings alleging that certain claimed features were not depicted in the drawings. The Examiner stated that "a cable adapter and a device adapter in claim 19, lines 2 and 4; 'the device adapter further comprises another recess extending into the body from the second end and **fluidly connected** to the first recess' in claim 21; and 'the output connector has a path formed there through constructed to circular [sic] a cooling flow through the connector assembly' in claim 73, must be shown or the feature(s) canceled from the claim(s)." *Office Action*, June 1, 2007, p. 2 (emphasis in original). Applicant respectfully disagrees with the Examiner's objections and believes that the drawings of the present application show each of these claimed features. The cable adapter and device adapter of claim 19 is shown in multiple figures. For instance, at least figures 2-4, 7-8, 13, and 16-17 depict a cable adapter and device

adapter. Furthermore, figure 3 depicts "another recess extending into the body from the second end and fluidly connected to the first recess." The specification states, "Third section 104 of recess 98 includes a plurality of threads 106 formed thereabout for receiving bolt 94." *Application*, ¶40. The recess 98 is made up of 3 portions, 100, 102, and 104, and each is fluidly connected as shown in figure 3. A hollow adapter can be used in place of a solid bolt, which allows circulation of a cooling flow through connector assembly 48. Thus, as a fluid (air) can move through different portions of recess 98, the claimed "recess" and "another recess" that are "fluidly connected" is at least depicted in figure 3. Finally, as described above, ¶40 of the specification discloses that a hollow adapter can be used in place of a solid bolt, which allows circulation of a cooling flow through the connector assembly. At least figure 3 depicts portions 100, 102, and 104 of recess 98, and these portions are a path formed through an output connector and, as disclosed, allow a cooling flow to circulate through the connector assembly. As such, Applicant believes that all the elements identified by the Examiner in the objection are clearly shown in the drawings of the present application, and additionally, are set forth in the specification

The Examiner also objected to claim 96. Applicant has amended claim 96 to address the objection.

Rejections Under §112

The Examiner rejected claims 21 and 73 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 21, the Examiner asserted that it is "unclear where is the 'another recess extending into the body from the second end and fluidly connected to the first recess.'" *Office Action*, supra at pg. 4. As set forth above, figure 3 depicts "another recess extending into the body from the second end and fluidly connected to the first recess." The specification states, "Third section 104 of recess 98 includes a plurality of threads 106 formed thereabout for receiving bolt 94." *Application*, ¶40. The recess 98 is made up of 3 portions, 100, 102, and 104, and each is fluidly connected as shown in figure 3. A hollow adapter can be used in place of a solid bolt, which allows circulation of a cooling flow through connector assembly 48. Thus, as a fluid (air) can move through different portions of recess 98, the claimed "recess" and "another recess" that are "fluidly connected" is at least depicted in figure 3. Furthermore, although the different portions are all described as "recess 98," as the first portion 100 and the

third portion 104 of recess 98 are differently shaped and on different ends, they can also be described as being a first recess and another recess. *Id.*

Regarding claim 73, the Examiner stated that "it is unclear where is '***a path*** formed there through constructed to circulate ***a cooling flow through the connector assembly***.'" *Office Action*, supra at 4 (emphasis in original). As stated above, a hollow adapter can be used in place of a solid bolt, which allows circulation of a cooling flow through connector assembly 48. *Application*, ¶40. In light of the above, Applicant respectfully requests withdrawal of the 35 U.S.C. 112 rejections of claims 21 and 73.

Applicant also notes that, although the Examiner stated that claim 106 was "unclear," the Applicant cannot determine whether Examiner intended to reject claim 106 under 35 U.S.C. 112, second paragraph. *See Office Action*, supra at pgs. 3-4. As the Examiner did not state that claim 106 was rejected under 35 U.S.C. 112, second paragraph, Applicant believes that the claim is in condition for allowance.

Additionally, the Examiner, after quoting 35 U.S.C. 112, second paragraph, states that "claims 61, lines 6-7, 'first attaching means' and 'second attaching means' raise issue of U.S.C. 112, 6th paragraph." Applicant notes that this does not appear to be a rejection under 35 U.S.C. 112 as well, and thus Applicant believes that the claim is also in condition for allowance.

Rejections Under §102(b) & §103(a)

Claim 1

With respect to the rejection of claim 1, the Examiner rejected claim 1 under 35 U.S.C. 102(b) as being anticipated by Stevens. The Examiner stated, "Stevens discloses the high-power quick connector assembly . . . [having] a recess (formed inside 62) constructed to receive the stem portion (30) of the first connector (12) and engage the shank segment (a portion of 30) and the threaded segment (a portion of 40, 42) (figure 1)." *Office Action,* supra at 5. Applicant respectfully disagrees.

Stevens shows engagement of threaded segment (40 and 42) in Figure 3. However, claim 1 calls for engagement of **two** distinct elements of the stem portion of the first connector: a shank segment and a threaded segment. Stevens does not show engagement of any separate shank segment in the recess (62). While Stevens may teach "coupling being completed by the threading or rotary movement at the end of the inserting movement" of the male element into the female element (*Col. 1, lines 45-52*), such coupling only involves the threaded portion of 30 (threaded

segments (40 and 42)) and no other "portion of 30," which the Examiner failed to identify with any particularity.

The Examiner further stated that Stevens discloses a high-power quick connector assembly. Claim 1 calls for the first connector to be connectable to a welding cable. While Stevens may teach a cable connector, Stevens does not disclose connecting either connector section 12 or 14 to a welding cable. In fact, the words "weld" or "welding" never appear in Stevens and the Examiner has admitted in regard to claim 19 that Stevens "lacks a welding cable." *Office Action*, supra at 9.

Accordingly, that which is called for in claim 1 is not shown or disclosed in Stevens. While claims 2-15 are in condition for allowance at least pursuant to the chain of dependency, dependant claims 2-15 include additional subject matter that is distinguishable from the art of record. Therefore, at least some of these additional distinctions will be addressed in detail here below.

Dependent Claims 5, 8, and 10

The Examiner rejected claim 5 under 35 U.S.C. 103(a) as being unpatentable over Stevens in view of Double and in further view of EP241121. The Examiner stated that "EP241121A2 teaches a threaded hole (adjacent to reference numeral 14) is formed in the collar portion of the first connector (18)(figure 1)." *Office Action,* supra at 11. The Examiner further stated that "it would have been obvious to one having ordinary skill . . . to modify the connector assembly of Stevens by having a thread hole in the first connector body as taught by EP241121 for securing the collar of the first connector to the outer housing of the connector assembly." *Id.*

Claim 5 calls for a plurality of threaded holes formed in the collar portion of the first connector of the high-power quick connector assembly. While it appears EP241121A2 contains a threaded hole (adjacent to reference numeral 14), the threaded hole is part of the second connector (14), not the first connector (12). That is, claim 1 calls for the first connector to have a stem portion and a collar portion. The female connector 14 of EP241121, which the Examiner asserts as containing a threaded hole, does not have a stem portion having a shank segment and a threaded segment. EP241121 does not teach, and the Examiner has not shown, threaded holes in the male connector, let alone a plurality of threaded holes in the male connector. Therefore, EP241121 does not teach a threaded hole formed in the collar portion of the first connector as called for in claim 5.

The Examiner rejected claim 8 under 35 U.S.C. 103(a) as being unpatentable over Stevens in view of Double. The Examiner stated that "Double teaches a weld cable" and cited column 8, lines 7-8 of Double. *Office Action,* supra at 8-9. Applicant respectfully disagrees.

Claim 8 calls for a connector attached to a welding cable. Double fails to teach or suggest a weld cable, but merely discloses an electrical connector structure employed in connection with submersible pumps. Column 8, lines 7-12 of Double read, "[t]he potting material M is such that it welds with the cable casing and is such that when it is cured . . . it establishes an extremely strong, durable and fluid tight connection with and between the cable and the body." One skilled in the art would recognize that the use of the term "weld" in Double refers to the bond formed between the potting material and the cable casing, not to connecting the potting material to a weld cable. As such, Double fails to teach or suggest a connector attached to a weld cable as called for in claim 8.

The Examiner also rejected claim 10 under 35 U.S.C. 103(a) as being unpatentable over Stevens in view of Double. The Examiner stated that, while Stevens "lacks to disclose the level of temperature and the amount of flow current," it would have been obvious to "provide on the connector assembly of Stevens a temperature change of less than approximately 40 degrees when subjected to a current of approximately 700 amps to prevent overheating." *Office Action,* supra at 9. Applicant respectfully disagrees.

The burden of establishing a prima facie case of obviousness falls on the Examiner. *MPEP §2143.* To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka,* 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The Examiner failed to show where either Stevens or Double teach the assembly to be constructed to maintain a temperature change of less than approximately 40 degrees when subjected to a current of approximately 700 amps. The Examiner merely concluded that such would be obvious to one skilled in the art without identifying where such is taught in the prior art. Therefore, notwithstanding the teachings of Stevens or Double, the art relied upon by the Examiner fails to teach or suggest that called for in claim 10. As such, Applicant believes that claim 10 is also patentably distinct from the art of record.

Claim 19

The Examiner rejected claim 19 under 35 U.S.C. 103(a) as being unpatentable over Stevens in view of Double. Claim 19 calls for "a device adapter comprising a body having a smooth section formed in the recess between the threaded section and the second end." The

Examiner states that Stevens teaches "a quick connector assembly for a device comprising a cable adapter (12) . . . a device adapter (10) . . . comprising a body (of 62 or 10) having a first (mating) end and a second (cable) end (which connects to the cable end 22); a recess (formed inside 62) extending into the body (of 10) from the first (mating) end; a threaded section (of 68, 70) formed in the recess (formed inside 62) proximate the first (mating) end; a smooth section (66, 64) formed in the recess (formed inside 62) between the threaded section (of 68, 70) and the second (cable) end (fig. 1)." *Office Action*, supra at 9. Applicant respectfully disagrees.

Stevens discloses a female coupling element 24 that includes a cylindrical portion 60 and a slightly reduced diameter portion 62 having a recess therein, as shown in Figs. 1 and 4. The recess is of a generally cylindrical shape having smooth opposed wall portions 64 and 66 and opposed threaded wall portions 68 and 70. Looking at figures 1 and 4, Stevens shows that the smooth portions 64 and 66 and the threaded wall portions 68 and 70 at the same lengthwise location of the recess. That is, Stevens fails to teach a device adapter comprising a body having a smooth section formed in the recess between the threaded section and the second end. Rather, Stevens teaches that smooth sections 66 and 64 are at the same axial location as the threaded end; the smooth sections 66 and 64 are the same distance from the second end as the threaded sections 68 and 70.

Furthermore, the Examiner also stated in the rejection of claim 19 that, "Double teaches a weld cable" and cited column 8, lines 7-8 of Double. *Office Action*, supra at 9. Applicant respectfully disagrees. Claim 19 calls for a connector attached to a welding cable. Double fails to teach or suggest a weld cable, but merely discloses an electrical connector structure employed in connection with submersible pumps. As set forth above with respect to claim 1, one skilled in the art would recognize that the use of the term "weld" in Double refers to the bond formed between the potting material and the cable casing, not to connecting the potting material to a weld cable. For all these reasons, Applicant believes that claim 19, and the claims dependent therefrom, are patentably distinct over the cited references.

Claim 61

In rejecting claim 61 under 35 U.S.C. 102(b), the Examiner stated that Stevens discloses "the high-power quick connector assembly for a welding-type apparatus comprising: means (housing/opening of 12) for receiving a cable (16)." *Office Action*, supra at 6. However, claim 61 also calls for "means for receiving a **weld** cable." In order to anticipate a claim, the reference must teach each and every element of the claim. *MPEP §2131*. Here, Stevens fails to teach any

such "means for receiving a weld cable." In fact, the words "weld" or "welding" never appear in Stevens and the Examiner has admitted such in regards to claim 19, stating that Stevens "lacks a welding cable." *Office Action*, supra at 9. As such, Applicant respectfully believes that claim 61, and the claims dependent therefrom, are patentably distinct over Stevens.

Claim 70

The Examiner rejected claim 70 under §103(a) as being unpatentable over Stevens in view of Double and further in view of Lecocq. While Applicant does not necessarily agree with the rejection, Applicant has nonetheless elected to amend claim 70 to incorporate the subject matter of claim 74 and the allowable subject matter of claim 75. Claims 74 and 75 have been canceled. As amended, claim 70 calls for, in part, a connector assembly including a cable connector, an output connector, an output connector electrically connectable to a power source, and an insulator positioned about the output connector and constructed to be secured to a housing positioned about the power source, the insulator including a first body having a boss and a second body having a recess, the boss of the first body constructed to engage the housing and be snuggly received in the recess of the second body. As claim 70 has incorporated the allowable subject matter of claim 75, Applicant respectfully believes that claim 70, and the claims dependent therefrom, are in condition for allowance.

Claim 85

The Examiner rejected claim 85 under 35 U.S.C. 102(b) over Stevens. Claim 85 calls for, in part, a "stud having a threaded portion and a shoulder portion wherein the shoulder portion . . . has a diameter that is greater than an outer diameter of the threaded portion." The Examiner failed to address this element of the claim, and a review of the cited reference shows that Stevens fails to teach or suggest the elements of claim 85 set forth above. For example, Fig. 5 of Stevens depicts a male portion of the connector as having threads on the entire portion 30, but no shoulder is disclosed. Moreover, Stevens fails to show a shoulder portion that "has a diameter that is greater than an outer diameter of the threaded portion." Each of the threads in Fig. 5 is shown to have the same diameter, and as such, Stevens does not teach or disclose a shoulder portion having a diameter that is greater than an outer diameter of the threaded portion as is called for in claim 85. Furthermore, claim 85 calls for "a cable connector constructed to connect to a weld cable." As set forth above, Stevens fails to teach a "weld cable." In light of the above, Applicant respectfully requests withdrawal of the rejection of claim 85 and the claims dependent therefrom.

Claim 93

The Examiner rejected claim 93 under 35 U.S.C. 103(a) as being unpatentable over Stevens in view of Double as applied to claim 11 and further in view of Cusick. Claim 93 calls for, in part, a high-power quick connector assembly including a plug constructed to be connected to a weld cable and having a stud having a second diameter substantially similar to the diameter of a second tubular section of a receiver, the second outer diameter having a plurality of threads formed thereabout. In rejecting claim 93, the Examiner asserted that "Stevens further discloses… a plug (body of 30) constructed to be connected to a weld cable (16) and having a stud (30), the stud (30) having a first diameter (of 32) substantially similar to the diameter of the first tubular section (of 24) of the receiver (10), and a second outer diameter (of 30) substantially similar to the diameter of the second tubular section (of 26) of the receiver (1), the second outer diameter (of 30) of the stud (30) having a plurality of threads (40, 42) formed thereabout. *Office Action*, supra at 14. Applicant believes that the Examiner has mischaracterized the teachings of Stevens in order to teach that which is called for in claim 93.

Despite the Examiner's assertion to the contrary Stevens fails to teach or suggest that which is called for in claim 93. That is, stud 30 does not have a "second diameter" substantially similar to the diameter of a second tubular section 26 of a receiver 10 and having threads 40, 42 formed thereabout, as the Examiner has asserted. A review of Figs. 1 and 2 of Stevens clearly shows that stud 30 does not have a second diameter substantially similar to the diameter 26 of the receiver. The threads 40, 42 present on stud 30 clearly are meant to engage the narrower diameter 24 of receiver 10, and not diameter 26. Furthermore, while the Examiner has rejected claim 93 under the combination of Stevens, Double and Cusick, the Examiner fails to state what, if any, elements of claim 93 are taught or suggested by Double or Cusick. As none of the cited references teaches or suggests that which is called for in claim 93, claim 93, and the claims dependent therefrom, are therefore patentably distinct over the cited references.

Claim 106

The Examiner rejected claim 106 under 35 U.S.C. 103(a) as being unpatentable over Lecocq in view of Stevens. The Examiner asserted that it would be obvious to one having ordinary skill at the time the invention was made to "provide on the connector assembly of Lecocq the amount of copper such as 80% and brass materials such as 75%...." *Office Action,* supra at 16. Lecocq, however, does not specify the percentage of copper and brass to be used in the connectors. Lecocq only discloses the use of "conductive material such as tellurium copper or

brass." *Col. 3, line 32.* Furthermore, Stevens only states that the coupling element be formed of "any suitable electronically conductive metal." *Col. 2, line 32.* To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). MPEP §2143.03. Furthermore, according to MPEP §2143.01, "obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so." There is no teaching or suggestion in either Lecocq or Stevens to construct the connector from a material having an electrical conductivity of a least 80% of that of copper and having a machineablity of at least 75% of that of brass as called for in claim 106. As such, all the claim limitations are not taught or suggested by the prior art. Accordingly, Applicant believes claim 106, and the claims that depend therefrom, are patentable over Lecocq and Stevens.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-15, 19-22, 24-37, 61-67, 70-81, 85-96, 99, and 101-108.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

/Kevin R. Rosin/

Kevin R. Rosin
Registration No. 55,584
Phone 262-268-8100 ext. 15
krr@zpspatents.com

Dated: August 31, 2007
Attorney Docket No.: ITW7510.088

P.O. ADDRESS:
Ziolkowski Patent Solutions Group, SC
136 South Wisconsin Street
Port Washington, WI 53074
262-268-8100

General Authorization and Extension of Time

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2623. Should no proper payment be enclosed herewith, as by credit card authorization being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2623. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extensions under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2623. Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 50-2623.

/Timothy J. Ziolkowski/

Timothy J. Ziolkowski
Registration No. 38,368
Direct Dial 262-268-8181
tjz@zpspatents.com

Dated: August 31, 2007
Attorney Docket No.: ITW7510.088

P.O. ADDRESS:
Ziolkowski Patent Solutions Group, SC
136 South Wisconsin Street
Port Washington, WI 53074
262-268-8100